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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/791,051

03/02/2004

Victor ChiSiang Choo

STL11375

2836

27365

7590

03/05/2009

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EXAMINER

KIM, PAUL D

ART UNIT

PAPER NUMBER

3729

MAIL DATE

DELIVERY MODE

03/05/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/791,051	<b>Applicant(s)</b> CHOO ET AL.	
	<b>Examiner</b> Paul D. Kim	<b>Art Unit</b> 3729	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-19, 21-23, 25-29, 31-33, 35, 38 and 41-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-23, 25-29, 32, 33, 35, 38 and 41-44 is/are rejected.
- 7) ☒ Claim(s) 17-19 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This office action is a response to the amendment filed on 12/11/2008.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 21-23, 25-29, 32, 33, 35, 38 and 41-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Ng (US PAT. 7,215,509).

Ng teaches a process of clamping storage media comprising steps of: supplying an outward force in a first direction (194, downward Y-direction) via contacting engagement with an assembly tool (188) against an inner portion (154) of a clamp (200) as shown in Fig. 8; and supplying a clamping force in a second direction (196, X-direction) generally transverse to the first direction to disengage the inner portion of the clamp from the assembly tool, thereby reducing the opening to install the clamp over a flange of a clamping interface (138) as shown in Figs. 10-12 (see also col. 7, line 13col. 8, line 38).

As per claim 16 the clamping interface includes a spindle portion (108, as shown in Fig. 1) rotatable relative to a hub and at least one disc (110) is assembled relative to the spindle portion prior to supplying the force to install the clamp as shown in Figs. 4-9.

As per claims 22 and 28 an inverted spring portion (a slopped tip portion) of the clamp is snap fitting into the groove of the clamping interface as shown in Fig. 9.

As per claims 23 and 42 the inner portion of the clamp is engaged along a sloped surface of an assembly tool (192) to supply the outward force to the inner portion prior to supplying the clamping force as shown in Fig. 7.

As per claim 25 the clamp includes a plurality of tabs (154) spaced about an inner circumference of the clamp and the assembly tool engages one or more of the plurality of tabs to bias the inverted spring portion of the clamp outwardly to install the clamp over a flange of the clamping interface as shown in Fig. 8.

As per claim 26 the clamping force is supplied while inner (190) and outer tools (192) engages the inner and outer portions of the clamp as shown in Fig. 8.

As per claims 27 and 31 the clamping interface is formed on a spindle assembly (108 as shown in Fig. 1) and one or more discs (110) on the spindle motors prior to supplying the clamping force as shown in Figs. 4-9.

As per claim 29 the outward force is supplied to the inner portion of the clamp prior to supplying the clamping force as shown in Figs. 8 and 9.

As per claim 32 the clamp is released the clamp from the assembly tool to snap fit the clamp into a groove of the clamping interface by supplying the clamping force step.

As per claim 33 at least one disc (110) is supported on a ledge surface (a surface that is co-planar with a top surface of the disk, 110) of the clamping interface and the clamp is snap fitting into the groove of the clamping interface having a surface recessed below the ledge surface of the clamping interface by supplying the clamping force step as shown in Fig. 9.

As per claims 35 and 41 the first direction is generally transverse to the second direction as shown in Figs. 8 and 10.

As per claim 37 the clamping force is supplied by moving the inner portion of the clamp along the sloped surface of the assembly tool as shown in Fig. 11.

As per claim 38 the engaged clamp is positioned proximate to the clamping interface prior to supplying the clamping force as shown in Fig. 9.

As per claim 43 the clamping force in the second direction is supplied to an intermediate portion of the clamp spaced from inner and outer edges of the clamp as shown in Figs 7 and 8.

As per claim 44 the clamping force is supplied via an assembly tool movable in the second direction toward the spindle assembly as shown in Figs 7-9.

### ***Allowable Subject Matter***

3. Claims 17-19 and 31 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 17-19, 21-23, 25-29, 31-33 and 35-40 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments filed 8/11/2008 have been fully considered but they are not persuasive. Applicant argues that the prior art of record, Ng, fails to disclose the claimed invention such as supplying an outward force in a first direction and supplying a clamping force in a second direction generally transverse to the first direction. Examiner traverses the argument. According to the Fig. 7, an outward force is supplied in a first direction (194, downward in Y-direction) to an inner portion of a clamp, which a diameter is larger than the spindle motor and follow by supplying a clamping force in a second direction (196 in X-direction), which is different from the first direction to install the clamp over the flange of the clamping interface. In Fig. 9. After the clamp is supplied outward force in the first Y-direction, the clamp is fitted by supplying the clamping force in the second X-direction, which the clamp is fitted in the slot as shown in Fig. 10.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 3729

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D. Kim whose telephone number is 571-272-4565. The examiner can normally be reached on Monday-Thursday between 6:00 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul D Kim/  
Primary Examiner, Art Unit 3729